## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the Application:

**Listing of Claims:**

1. (Currently amended) A network comprising a plurality of Nodes interconnected by Links, wherein:

(a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path to at least one origin comprising one or more Links, wherein a Link is a connection between two Nodes or between a Node and the at least one origin, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more Links in said path;

(b) each coordinate label is unique to the Node to which it is assigned;

(c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least a part of at least one of said at least one label of one of said coordinate labels assigned to said first Node and at least a part of at least one of said at least one label of one of said coordinate labels assigned to said second Node; and

(d) said first Node stores the set of one or more coordinate labels.

2. (Previously presented) The network of claim 1 wherein said first Node reroutes any data intended for said second Node in the event said second Node moves or fails.

3. (Currently amended) A network comprising a plurality of Nodes interconnected by Links, wherein:

(a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path to at least one origin comprising one or more Links, wherein a Link is a connection between two Nodes or between a Node and the at least one origin, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more Links in said path;

(b) each coordinate label is unique to the Node to which it is assigned;

(c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least a part of at least one of said at least one label of one of said coordinate labels assigned to said first Node and at least a part of at least one of said at least one label of one of said coordinate labels assigned to said second Node; and

(d) at least one of said plurality of Nodes is automatically replicated to create at least one mirror Node.

4. (Original) The network of claim 3 where said at least one mirror Node is mobile.

5. (Previously presented) The network of claim 3 where said at least one of said plurality of Nodes that is automatically replicated is mobile.

6. (Previously presented) The network of claim 3 where said at least one of said plurality of Nodes that is automatically replicated is a part of the World Wide Web.

7 (Previously presented) The network of claim 3 wherein a packet is routed to a closest Node of said at least one mirror Node.

8. (Currently amended) A network comprising a plurality of Nodes interconnected by Links, wherein:

(a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path to at least one origin comprising one or more Links, wherein a Link is a connection between two Nodes or between a Node and the at least one origin, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more Links in said path;

(b) each coordinate label is unique to the Node to which it is assigned;

(c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least a part of at least one of said at least one label of one of said coordinate labels assigned to said first Node

and at least a part of at least one of said at least one label of one of said coordinate labels assigned to said second Node; and

(d) said first Node automatically creates at least one cache and redirects a data request to said at least one cache.

9. (Original) The network of claim 8 where said at least one cache is mobile.

10. (Original) The network of claim 8 where said at least one cache contains a load from a mobile Node.

11. (Currently amended) A network comprising a plurality of Nodes interconnected by Links, wherein:

(a) each Node is assigned a set of one or more coordinate labels, each of said coordinate labels representing a path to at least one origin comprising one or more Links, wherein a Link is a connection between two Nodes or between a Node and the at least one origin, and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more Links in said path;

(b) each coordinate label is unique to the Node to which it is assigned;

(c) a path between a first Node and a second Node that includes at least a third Node between said first Node and said second Node being determined by combining at least a part of at least one of said at least one label of one of said coordinate labels assigned to said first Node and at least a part of at least one of said at least one label of one of said coordinate labels assigned to said second Node; and

(d) said first Node is a mobile Node.

12. (Original) The network of claim 11 where said mobile Node is a PDA.

13. (Original) The network of claim 11 where said mobile Node is a cellular telephone.

14. (Original) The network of claim 11 where said mobile Node is a laptop computer.

15. (Original) The network of claim 11 where said mobile Node is a router located on a vehicle.

16. (Currently amended) A method for determining a path from a source Node to a destination Node in a network comprising a plurality of Nodes interconnected by Links, said Nodes including a first Node, and a plurality of second Nodes, said second Nodes including said source Node and said destination Node, said method comprising:

(a) assigning to each of said second Nodes one or more coordinate labels, each coordinate label representing a path comprising one or more Links through said network from one of said plurality of second Nodes to which it is assigned to said first Node and each of said coordinate labels including at least one label that each identify a corresponding one of said one or more Links in said path;

(b) determining a path from said source Node to said destination Node including at least a third Node between said source Node and said destination Node by combining at least a part of at least one of said at least one label of one coordinate label of said source Node and at least a part of at least one of said at least one label of one coordinate label of said destination Node; and

(c) at one of said plurality of second Nodes, storing one or more coordinate labels of another said plurality of second Nodes that is adjacent to said one of said plurality of second Nodes.

17. (Previously presented) The method of claim 16 further comprising, at said one of said plurality of second Nodes, rerouting data intended for said another of said plurality of second Nodes in the event that one or more Links and/or Nodes between said one of said plurality of second Nodes and said another said plurality of second nodes prevents communication between said one of said plurality of second Nodes and said another said plurality of second nodes.

18. (Currently amended) A Node for use in a network, said network comprising a plurality of Nodes connected by Links, wherein:

(a) said Node for use in said network has one or more coordinate labels assigned to said node, each coordinate label representing a path comprising one or more Links from said

Node to a particular other Node of said network ~~that includes at least a third Node between said first Node and said second Node~~, each of said coordinate labels being unique to said Node, each of said coordinate labels including a label that identifies each of said one or more Links in said path, said Node routes data to a destination Node via a path that includes at least a third Node between said first Node and said second Node determined by combining at least a part of at least one of said at least one label of one of said coordinate labels assigned to said source Node and at least a part of at least one of said at least one label of one of said coordinate labels assigned to said destination Node; and

(b) said Node stores one or more coordinate labels corresponding to an adjacent Node.

19. (Original) The Node of claim 18 wherein said Node reroutes any data intended for said adjacent Node in the event said adjacent Node is moved to a different location.

20. (Original) The Node of claim 18 wherein said Node reroutes any data intended for said adjacent Node in the event said adjacent Node is unable to receive said packet.

21. (Previously presented) The network of claim 1 wherein said first Node reroutes any data intended for said second Node in the event said that one or more Links and/or Nodes between said first Node and said second Node prevents communication between said first Node and said second Node.

22. (New) The network of claim 1, wherein the origin is an origin node of the plurality of nodes and wherein the set of one or more coordinate labels assigned to the origin node is nil.

23. (New) The network of claim 1, wherein the origin is a location that is not part of the network.

24. (New) The network of claim 1, wherein the combining includes removing a common part from each of the at least one of said at least one label of one of said coordinate labels

assigned to said first Node and the at least one of said at least one label of one of said coordinate labels assigned to said second Node.

25. (New) The network of claim 1, wherein the combining further comprises reversing the order of at least part of the at least one of said at least one label of one of said coordinate labels assigned to said second Node.

26. (New) The network of claim 1, wherein for each node each label of the labels corresponding to one of said one or more links connected to a particular node is unique from each other label corresponding to one of said one or more links connected to that particular node.

27. (New) The network of claim 3, wherein the combining includes removing a common part from each of the at least one of said at least one label of one of said coordinate labels assigned to said first Node and the at least one of said at least one label of one of said coordinate labels assigned to said second Node.

28. (New) The network of claim 8, wherein the combining includes removing a common part from each of the at least one of said at least one label of one of said coordinate labels assigned to said first Node and the at least one of said at least one label of one of said coordinate labels assigned to said second Node.

29. (New) The network of claim 11, wherein the combining includes removing a common part from each of the at least one of said at least one label of one of said coordinate labels assigned to said first Node and the at least one of said at least one label of one of said coordinate labels assigned to said second Node.

30. (New) The network of claim 16, wherein the combining includes removing a common part from each of the at least one of said at least one label of one of said coordinate labels assigned to said source Node and the at least one of said at least one label of one of said coordinate labels assigned to said destination Node.

31. (New) The network of claim 18, wherein the combining includes removing a common part from each of the at least one of said at least one label of one of said coordinate labels assigned to said source Node and the at least one of said at least one label of one of said coordinate labels assigned to said destination Node.